

CUSTOMIZED POLISH PADS FOR CHEMICAL MECHANICAL PLANARIZATION

ABSTRACT

A polishing pad for chemical mechanical planarization of a film on a substrate is customized by obtaining one or more characteristics of a structure on a substrate. For example, when the structure is a chip formed on a semiconductor wafer, the one or more characteristics of the structure can include chip size, pattern density, chip architecture, film material, film topography, and the like. Based on the one or more characteristics of the structure, a value for the one or more chemical or physical properties of the pad is selected. For example, the one or more chemical or physical properties of the pad can include pad material hardness, thickness, surface grooving, pore size, porosity, Young's modulus, compressibility, asperity, and the like.